



October 7, 2021

Nicole Espinoza
Electric Conduit Construction
3333 S. Iron St.
Chicago, IL 60608

RE: Thorium Monitoring 502 N. Peshtigo Ct.
CDOT Permit #1589848

Dear Ms. Espinoza:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of a conduit and manhole installation at 502 N. Peshtigo Ct. in Chicago, Illinois. The monitoring was performed by Jeremy Kieser, SAHCI Health Physics Technician, on September 28 and 30, 2021.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was last calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,572 counts per minute (cpm).

The background count rate for this location was measured as 1,848 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected by entering the excavation and recording the highest count rate for the floor and walls to an excavation depth of 3 feet below ground surface. Soil excavated below 3 feet to a maximum depth of 7 feet was monitored in the excavator bucket as it was removed. Soil was loaded directly into a truck for offsite disposal.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation ranged from 1,800 cpm to 3,500 cpm. No count rates were found at any time that exceeded the threshold limit of 7,572 cpm.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID: DOT1589848

Date: Sept 28 & 30, 2021

Technician: Jeremy Kieser

Inst Model: Ludlum 2221

Serial No.: 132844

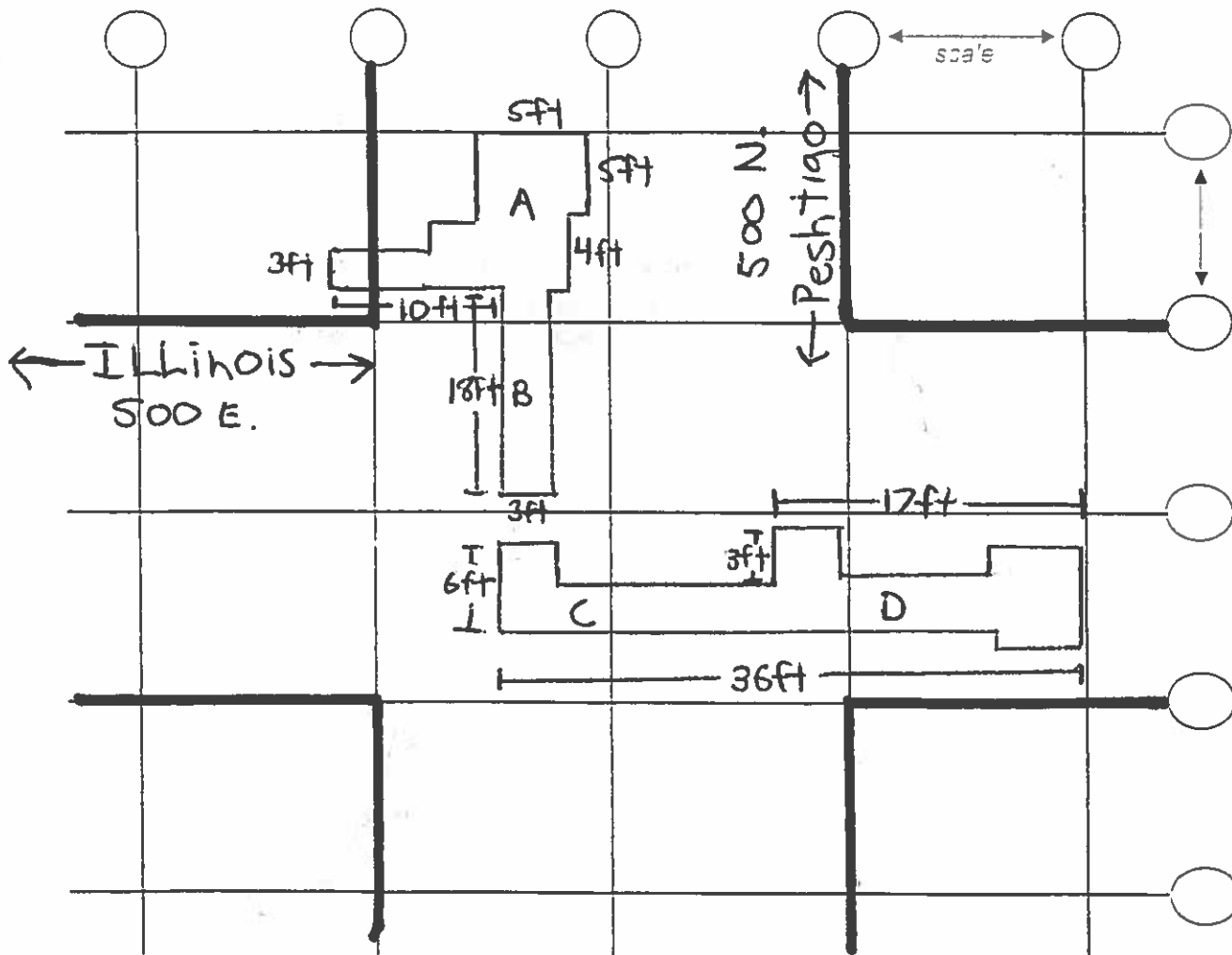
Probe Type: 1"x1" NaI / 2"x2" NaI
Shielded / Not Shielded

Lift Elevation: 0 to 84 inches

Background 1848 cpm

Action Level: 7572 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



500 N. Peshtigo Ct. (Peshtigo & Illinois)

DOT1589848

September 28 & 30, 2021

Survey by: Jeremy Kieser (SAHCI)

Counts in cpm at each location:				
Depth:	Location A	Location B	Location C	Location D
Surface	1800	1800	1800	1800
18 Inches	2400	2100	2500	2300
36 Inches	3100	3400	3400	3500
54 Inches	3100	N/A	N/A	N/A
72 Inches	2400	N/A	N/A	N/A
84 Inches	2200	N/A	N/A	N/A